## **CLAIMS**

What is claimed is:

- 1. A magnetic recording medium comprising, in order:
- (1) a non-magnetic support,
- a radiation-cured layer formed by applying a layer containing a radiation curing compound and curing by exposure to radiation, and
  - a magnetic layer having a ferromagnetic powder dispersed in a binder, or
  - (2) a non-magnetic support,
- a radiation-cured layer formed by applying a layer containing a radiation curing compound and curing by exposure to radiation,
- a non-magnetic layer having a non-magnetic powder dispersed in a binder, and
  - a magnetic layer having a ferromagnetic powder dispersed in a binder;

the radiation-cured layer including 0.3 to 30 parts by weight of an inorganic powder relative to 100 parts by weight of the radiation curing compound.

- 2. The magnetic recording medium according to Claim 1, wherein it is the magnetic recording medium described in (2).
- 3. The magnetic recording medium according to Claim 1, wherein the inorganic powder is selected from the group consisting of a metal oxide, a metal carbonate, a metal sulfate, a metal nitride, a metal carbide, a metal silicide, and a metal sulfide.
- 4. The magnetic recording medium according to Claim 1, wherein the inorganic powder is selected from the group consisting of  $\alpha$ -alumina with an  $\alpha$  component proportion of at least 90%,  $\beta$ -alumina,  $\gamma$ -alumina,  $\theta$ -alumina, silicon carbide, chromium oxide, cerium oxide,  $\alpha$ -iron oxide, goethite, corundum, silicon nitride, titanium carbide, titanium oxide, silicon dioxide, tin oxide, magnesium oxide, tungsten oxide, zirconium oxide, boron nitride, zinc oxide, calcium carbonate,

calcium sulfate, barium sulfate, and molybdenum disulfide.

- 5. The magnetic recording medium according to Claim 1, wherein the inorganic powder is selected from the group consisting of titanium dioxide, zinc oxide, iron oxide, and barium sulfate.
- 6. The magnetic recording medium according to Claim 1, wherein the inorganic powder is selected from the group consisting of titanium dioxide and  $\alpha$ -iron oxide.
- 7. The magnetic recording medium according to Claim 2, wherein the inorganic powder has the same composition as that of the non-magnetic powder.
- 8. The magnetic recording medium according to Claim 1, wherein the radiation is an electron beam or ultraviolet rays.
- 9. The magnetic recording medium according to Claim 1, wherein the radiation is an electron beam.
- 10. The magnetic recording medium according to Claim 1, wherein the radiation curing compound is a diffunctional acrylate compound or a diffunctional methacrylate compound.
- 11. The magnetic recording medium according to Claim 1, wherein the ferromagnetic powder is a ferromagnetic metal powder.
- 12. The magnetic recording medium according to Claim 1, wherein the ferromagnetic powder is a ferromagnetic hexagonal ferrite powder.
- 13. The magnetic recording medium according to Claim 1, wherein the radiation curing compound has a viscosity at 25°C of 10 to 1,000 mPa-sec.
- 14. The magnetic recording medium according to Claim 1, wherein the non-magnetic support has a thickness of 10 µm or less.
- 15. The magnetic recording medium according to Claim 1, wherein the radiation-cured layer includes at least 0.3 parts by weight and less than 5 parts by weight of the inorganic powder relative to 100 parts by weight of the radiation curing

compound.